A NEW CALIFORNIAN GARRISCAPHUS: REPORT OF THE BOTHRIOGASTRINAE IN THE NEW WORLD[1]

(CHILOPODA: GEOPHILOMORPHA : HIMANTARIIDAE : BOTHRIOGASTRINAE)

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ABSTRACT—*Garriscaphus* **tytthus**, n. sp., is described and illustrated from California.

A family of enduring ancient habitus, the Himantariidae are properly divisible into two subfamilies: Himantariinae, occurring widely and nearly exclusively in the northern hemisphere; Bothriogastrinae[2], heretofore known only from Greece and the adjacent Near East including northern Africa, and Asia. In genera and species the Himantariinae seem by far the larger of the two.

To date several dozen himantariid species and more than a dozen genera have been described from North America including Mexico by R. V. Chamberlin[3]. Both from what he published and wrote privately to me I was led to believe that his new forms were himantariine. There was no reason for supposing any of the known New World forms to be bothriogastrine, until recently when some Mexican and western North American material, including the specimen discussed here, came into my possession. To my astonishment I found that a number of these specimens were bothriogastrine himantariids. In light of this evidence and having reviewed Chamberlin's writings with renewed care and interpretive liberality, I cannot discout the possibility that certain others of Chamberlin's American forms are probably bothriogastrines, although they were never designated by him as such.

The new species described here is without any question referable to Chamberlin's Californian *Garriscaphus*[4]. They are identical in general habitus. All of the extraordinary peculiarities attributed to *oreines* are duplicated in the present new form. For example, in both the base of the tarsungula is curiously enlarged[5], the pleurograms are present but very weak, an uncommon condition; their coxopleural pore configurations are both distinctive and identical.

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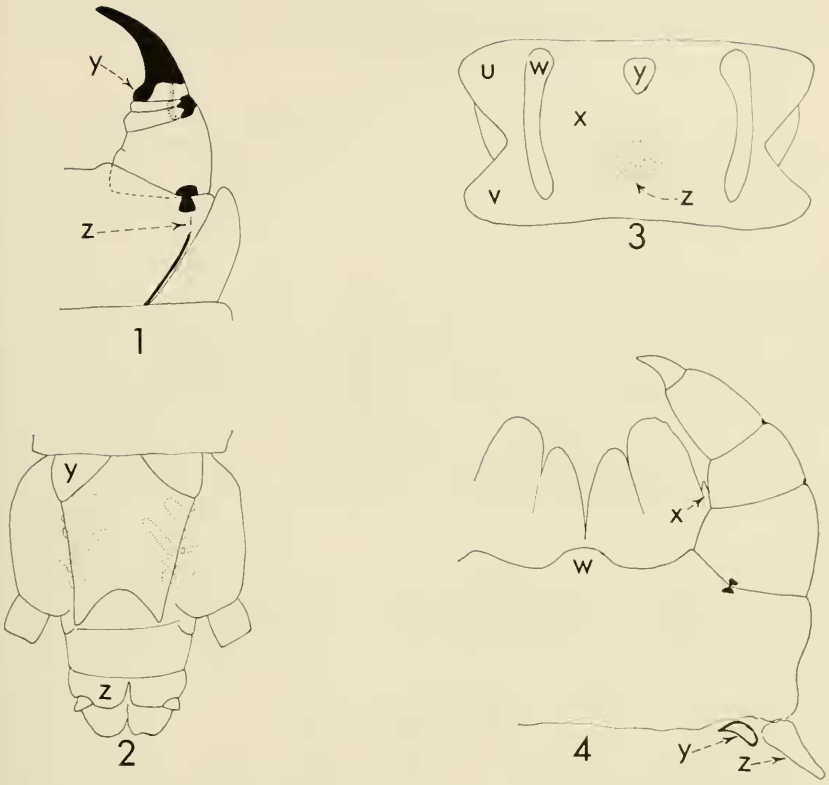
[1] Prepared with aid of a grant from the National Science Foundation.

[2] As used here exactly equal to Attems' Bothriogastrini, in Das Tierreich, Lief. 52, p. 46, 1929, and to Verhoeff's Bothriogastrinae + Mesocanthinae, in Bronn's Klassen u. Ordnungen, 5, p. 548, 1925.

[3] For a detailed systematic summary see Crabill, 1959, Ent. News 70(5, 6): 117–126, 154–159.

[4] 1941, Ann. Ent. Soc. Amer. 43:789. Published with two new species: *oreines*, type-species by original designation; *amplus*, which is probably referable to *Chomatobius* Humbert & Saussure.

[5] In neither is the slight swelling at the base of the tarsungula to be compared with the prominet basal tooth of *Thracophilus* Verhoeff, which is chiefly signalized by that feature.



Figs. 1–4. *Garriscaphus tytthus*, n. sp., holotype: 1, left prehensor with left half of prosternum, ventral, setae deleted (y = swelling at base of tarsungula, z = weakly developed but complete left pleurogram); 2, ultimate pedal and postpedal segments, ventral, setae deleted (y = right side of cleft presternite, z = left ♀ gonopod, basal article); 3, 17th sternite with flanking pro- and metacoxal pleurites, ventral, setae deleted (u = procoxal pleurite, v = metacoxal pleurite, w = parasternital fossa, x = sternite, y = anterocentral fovea, z = porefield); 4, left ⅔ of first and second maxillae, ventral, setae deleted (x = telopodite lappet, y = salivary pore, z = postmaxillary sclerite).

Garriscaphus tytthus, n. sp.

The new form plainly is closely similar to *oreines*, but in the Chamberlin species the sternital porefields are described as follows: ". . . anterior margin convex and posterior more deeply concave." In other words, they are distinctly reniform, a familiar contour within the family. On the other hand, in *tytthus* they are strictly evenly elliptical and not at all reniform. Undoubtedly there are additional features differentiating the species, but they cannot be ascertained from Chamberlin's description of *oreines*.

Holotype: female. California, Los Angeles County, Arroyo Seco. May 10, 1958. R. M. Bohart and A. S. Menke, legg. Deposited in the collection of the U. S. National Museum.

GENERAL. Length, 22 mm. Leg pairs, 55. Color, sordid white. Shape, uniform in width over most of body, the rear dozen segments slightly attenuate. ANTENNAE. Comparatively short, length to head length 12:4. Distally not perceptibly attenuate, not geniculate, dorsoventrally slightly depressed. Each article except the 14th wider than long. Vestiture very sparse, extremely short. Setosensoria of article 14 equal in size, both located at midlength. CEPHALIC PLATE. Width to length, 13:10. Frontal suture absent. CLYPEUS. Without anterocentral fenestra or prelabral plagulae. Vestiture short and extremely sparse, limited to anterior third. Paraclypeal sutures essentially straight, longitudinal, not oblique, meeting labral fulcra at their midlengths. LABRUM. The two sides divided medially within the embayment; teeth 5 + 5, robust. Separated from clypeus by a complete clypeolabral suture. Fulcra: transverse members robust, strictly transverse, not oblique. FIRST MAXILLAE. Coxosternum medially completely cleft; without lappets. Medial lobes ⅔ as long as telopodites. Telopodites: uniarticular; with very short, pointed lappets. SECOND MAXILLAE. Anteroposteriorly deep; isthmus anteromedially swollen and protracted, not diastemate, not sulcate. Telopodite: with well-developed ventral and dorsal condyles; terminal claw smooth, not filamentous, without basal bristles. Postmaxillary sclerites present but evanescent. PREHENSORS. No article including tarsungula with a true denticle. Tarsugula: comparatively short and robust; presentation dorsomedial; edge smooth, not serrulate; basomedially with a very slight swelling but without a typica denticle (as, for instance, in *Thracophilus*). Poison calyx (as in all Himantariidae) linear but uncommonly short. PROSTERNUM. Short and broad. Pleurograms present but weak. Anterocentral denticles absent. PLEURITES. Paratergites absent. Spiracles circular to subcircular. STERNITES. On anterior body subrectangular, posteriorly becoming longer than wide; on rear body much longer than wide, conspicuously elongate. Sternites 13–23 each conspicuously flanked on each side by a very deep, wide, anteriorly expanded parasternital fossa; the same sternites each anteromedially with a shallow areolate fovea. POREFIELDS. Present on 2 through the penult without interruption. On anterior body third each subelliptical, not reniform; thereafter decreasing very notably in size, becoming minute and subcircular; on last 5 segments becoming slightly larger, strictly subelliptical. LEGS. Comparatively short and robust. Essentially glabrous. Pretarsal parungues equal in length, at most ½ as long as claws; none hypertrophied. ULTIMATE PEDAL SEGMENT. Pretergite anteroposteriorly deep; laterally fissite, pleurites discrete. Tergite: greatest width to length 13:8; sides straight, strongly convergent. Presternite medially deeply cleft. Sternite: relatively elongate, greatest length to width 10:9; sides straight and convergent; rear deeply embayed. COXOPLEURON. Moderately inflated, not encroaching upon penult; a linear series of small superficial pores (not in crypts) along and beneath tergite and sternite margins. Telopodite: slightly longer than penult; nearly glabrous; not inflated; with two equal tarsalia; pretarsus absent. POSTPEDAL SEGMENTS. Female gonopods only basally adnate, each distinctly biarticular, the distal article notably papiliform.